

**Translation**

**PATENT COOPERATION TREATY**

PCT/JP2003/016133



**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>WO-AR2003-39</b>	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. <b>PCT/JP2003/016133</b>	International filing date ( <i>day/month/year</i> ) <b>16 December 2003 (16.12.2003)</b>	Priority date ( <i>day/month/year</i> ) <b>20 December 2002 (20.12.2002)</b>
International Patent Classification (IPC) or national classification and IPC <b>B65D 1/40, G01N 1/10, 35/02</b>		
Applicant <b>ARKRAY, INC.</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☐ (*sent to the applicant and to the International Bureau*) a total of \_\_\_\_\_ sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

Date of submission of the demand <b>24 May 2004 (24.05.2004)</b>	Date of completion of this report <b>19 January 2005 (19.01.2005)</b>
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/016133

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☒ The international application as originally filed/furnished

☐ the description:

pages \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the claims:

pages \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the drawings:

pages \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP03/16133

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-25	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-25	NO
Industrial applicability (IA)	Claims	1-25	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

Document 1: JP, 2001-318101, A (ARKRAY, INC.), 16 November 2001 (16.11.01), paragraphs [0011]-[0025]

Document 2: Microfilm of the specification and drawings annexed to the written application of Japanese Utility Model Application No. 140697/1974 (Laid-open No. 068761/1976) (TATSUJI BABA), 04 June 1976 (04.06.76), specification, page 2, line 3 to page 3, line 1; Figs. 1-2

Document 3: JP, 3052950, U (K.K. SHOSANDO), 13 October 1998 (13.10.98), paragraph [0006]

Document 4: JP, 2001-349896, A (ARKRAY, INC.), 21 December 2001 (21.12.01), paragraph [0039], Fig. 3

Document 5: JP, 09-156624, A (KUREHA PLASTICS K.K.), 17 June 1997 (17.06.97), paragraph [0011]

The subject matter of claims 1-7 and 9 does not involve an inventive step on account of document 1 cited in the ISR (paragraphs [0011]-[0025]) and newly cited document 2 (specification, page 2, line 3 to page 3, line 1). Using the adhered liquid moving means taught by document 2 in the liquid storage container of document 1 would be easy for a person skilled in the art. Also, when providing an adhered liquid moving means, the question of what shape to make it is something could be appropriately selected by a person skilled in the art as required; making it an extended spiral, as described in document 4 cited in the ISR (paragraph [0039]) is a mere matter of design variation. Also, the adhered liquid moving means of document 2 extends to the bottom of the container, as shown in Fig. 1; obviously it is formed so that it is positioned lower than the surface of the liquid when the target amount of liquid is stored in the storage part. In addition, the question of how to form an adhered liquid moving means it is something could be appropriately selected by a person skilled in the art as required; integrally forming it by resin molding it with the storage part is a mere matter of design variation. Furthermore, using an adhered liquid moving means for moving toward the bottom of container or moving toward an opening is something could be appropriately selected by a person skilled in the art as required.

The subject matter of claim 8 does not involve an inventive step on account of document 3 cited in the ISR (paragraph [0006]). Using the adhered liquid moving means taught by document 3 in the liquid storage container of document 1 would be easy for a person skilled in the art.

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.  
Continuation of Box V:

The subject matter of claims 11-16, 19-23 and 25 does not involve an inventive step on account of document 1 and document 2. Using the adhered liquid moving means taught by document 2 in the cartridge of document 1 would be easy for a person skilled in the art. Also, when providing an adhered liquid moving means, the question of what shape to make it is something that could be appropriately selected by a person skilled in the art as required; for example, making it an extended spiral as described in document 4, is a mere matter of design variation. Also, the adhered liquid moving means of document 2 extends to the bottom of the container, as shown in Fig. 1; obviously it is formed so that it is positioned lower than the surface of the liquid when the target amount of liquid is stored in the storage part. In addition, the question of which tank in the cartridge to provide an adhered liquid moving means is something could be appropriately selected by a person skilled in the art as required. Furthermore, using an adhered liquid moving means for moving toward the bottom of container or moving toward an opening is something could be appropriately selected by a person skilled in the art as required.

The subject matter of claims 17 and 18 does not involve an inventive step on account of document 1, document 2, and document 4 cited in the ISR (paragraph [0039]). Making the seal material of the cartridge in document 1 cover all the tank's upper openings in the manner of the sheet material taught in document 4 would be easy for a person skilled in the art.

The subject matter of claim 24 does not involve an inventive step on account of document 1 and document 3. Using the adhered liquid moving means taught by document 3 in the cartridge of document 1 would be easy for a person skilled in the art. In addition, the question of which tank in the cartridge to provide an adhered liquid moving means is something could be appropriately selected by a person skilled in the art as required.